

by one brood of larvae, the leaves turned brown and withered.

Two broods in the year. Winter passed as pupa in the ground. The larva is common in New York and New Jersey on the wild

cherry (*Prunus serotina*), its only food plant. Were this plant of any economic importance, this Geometrid would be classed among the injurious species.

LIFE HISTORIES OF NORTH AMERICAN GEOMETRIDÆ.—IX.

BY HARRISON G. DYAR, WASHINGTON, D. C.

Therina athasiaria Walker. The moth was determined by Dr. Hulst.

The only reference to the early stages of this species is by Dr. Packard (*Therina seminudaria*, Rept. ent. U. S. dept. Agr., 1886, p. 329; 5th rept. U. S. ent. comm., p. 777), who describes a pupa and gives as food plant white pine. But as this is not the food plant of *T. athasiaria*, I doubted the determination. The doubt was confirmed by finding Dr. Packard's bred moth, with his label attached in the National Museum. It proves to be *T. pellucidaria* G. & R. Therefore the early stages of *T. athasiaria* have not been previously referred to.

Egg. Elliptical, narrowing a little at one end, and smoothly truncate at the other, shining dark bluish green. The truncate surface is distinctly limited, and a little bulging centrally. Surface neatly reticulate in rounded areas, the reticulations not shiny, not elevated. Size $.8 \times .6 \times .5$ mm. The color changed to a gray green, and latter to sordid pink. Apparently laid in nature in the cracks of the bark. In confinement the moth deposited them between the cover and the glass, and under some paper lying in the bottom. The eggs hatched in ten days.

Stage I. Head large, round, dark brown, mouth region a little paler brown; setae short, stiff and pale, from minute dark tubercles; width about .35 mm. Body whitish, thorax and joints 10 to 13 dorsally, and circling bands on joints 4 to 9 dark red-brown. Smooth, no projections. The brown on the

thorax is a slight shading, on joints 10 to 13 it is in dorsal and subdorsal bands; feet pale; no longitudinal bands on the central portion, except a very faint and slender brown lateral line which connects the transverse bands. The larvae were very active, and much annoyed by the presence of others of the same species, so that many died before a few were finally induced to feed.

Stage II. Head white, a little sordid, shaded with blackish at the vertex, and sides posteriorly; eyes black; with .6 mm. Body all opaque white, a little grayish, no marks, except a few tiny dark brown specks subdorsally centrally on the segments. In some, this forms a slender subdorsal line with a few faint dots besides. Tubercles brown; segments rather finely annulated. Setae short and pale.

Stage III. Head 1.0 mm. As before. Head white with many small brown-black specks: thicker at the sides posteriorly and in the sutures of clypeus; rounded bilobed, higher and wider than joint 2. Body pale gray with a slight greenish tint, obscurely longitudinally lined with several whitish lines, and sparsely black speckled. Tubercles i and ii, small subdorsal shades posteriorly on the segments, a subventral broken line, and medioventral dashes compose these speckles. Foot of joint 10, and sides of thorax darkly shaded. Anal plate rounded, not black marked. Setae obscure, pale. The larvae were still very active, and difficult to feed.

Stage IV. Head rounded bilobed, full, pale wood brown, faintly mottled with red brown, the upper tubercles black; width 1.4 mm. Body rather slender, smooth, pale greenish brown, faintly, finely, longitudinally lined with whitish, the tubercles rather broadly black marked. A subventral blackish shade line posteriorly. The pale lines are numerous, edged finely with dark brown, crinkly and a little mottled, some of the edgings broader and blacker than the others.

Stage V. Head whitish, mottled, dotted in patches with gray, tubercles and sutures of clypeus black; width 1.7 mm. Body greenish white, slightly tinged with brown, a little lined and marbled with brownish and gray, as before; tubercles black, setae pale. Shields concolorous with the body. Variation in color as in the next stage.

Stage VI. Head rounded, full, slightly bilobed, the clypeus small, somewhat depressed; width 2.2 mm. Whitish green with gray dottings over the lobes, tubercles represented by black spots. Body cylindrical, smooth, uniform, colored as before. The bred larvae were rather brightly colored. Ground color pale, nearly all whitish green, the black dashes heavy subdorsally intersegmentally; orange shading on the cervical shield, and in the subdorsal pale line, which is the only distinct line. The orange shadings are above the black dashes, which in turn border the pale line below. Anal plate orange shaded; tubercles represented by black spots. Another collected example was uniformly brownish, heavily mottled, only the subdorsal line, and a few streaks showing the whitish green ground color.

Food plant oak. The larvae are colored like the bark, and probably rest upon it. A single brood in the year, the winter passed as pupa. Larvae from Brookhaven, Long Island, N. Y. Eggs, June 12th, mature larvae not till late September or October; the development very slow.

The descriptions of the larvae of *Therina* are in some confusion. In the 5th report of

the U. S. entomological commission are four descriptions, two of larvae on oak, and two on pine and spruce. I have shown above that the pupa described (p. 777) as "*seminudaria*" should be credited to *fellucidaria*, and probably the pupa described on p. 841 as "*fervidaria*" belongs to the same, judging from the food plant. On p. 186 "*fervidaria*" is described, possibly correctly; but more probably it is *fiscellaria* Gn., as the moths "reared from the live oak in Florida by Dr. Riley" (*i. e.* Mr. Koebele) are of that species, and Abbot's locality is southern. Following this is a description of "*endrofitaria*," but obviously incorrect, as it differs totally from Goodell's correct one, which is referred to, without comment on the marked discrepancy. The description is taken from the books of the Department of Agriculture (no. 3904), and the bred moth before me proves it to refer to *fiscellaria* Gn.

The larvae of *fellucidaria*, *athasaria*, *fiscellaria* (and *fervidaria* also?) are alike at maturity, within the normal range of variation, so that they cannot be distinguished with certainty. As to the earlier stages, I am not yet fully informed; but hope to be able to bring out the characters before this series of papers is closed.

THE NAME LEONIA.—In *Psyche*, Oct., 1899, p. 416, I discussed *Leonia*, and its ally *Hornia*, without remembering that the name *Leonia* was proposed by Gray many years ago (1840) for a genus of Mollusca. There seems to be no alternative but to change the name of the meloid *Leonia*, so I will propose to substitute *Leonidia*, n. n. It is perhaps a matter of taste whether it is regarded as a distinct genus, or subgenus of *Hornia*.

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CORRECTION OF AN ERROR.—In *Psyche*, vol. vii, p. 252 (June, 1895), I described an interesting Tineid larva, feeding on *Rubus*, as "*Butalis basilaris* Zell," depending upon the supposed accuracy of the determination made for me by Prof. C. H. Fernald. The